

AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth below:

1-22. Cancelled

23. (New) A modular walk-through metal detector comprising:

a plurality of separate and interchangeable transmitter sensor panels electrically coupled to each other and arranged one above the other to form a first side wall;

a plurality of separate and interchangeable receiver sensor panels electrically coupled to each other and arranged one above the other to form a second side wall opposite the first side wall;

at least one cross-member that engages each side wall; and

a microcontroller operatively coupled to the transmitter and receiver sensor panels;

wherein the microcontroller is configured to determine a position of each transmitter and receiver sensor panel.

24. (New) The metal detector of claim 23, wherein the sensor panels may be stored in the cross member when the metal detector is disassembled.

25. (New) The metal detector of claim 23 wherein the metal detector comprises three transmitter sensor panels and three receiver sensor panels.

26. (New) The metal detector of claim 23 wherein each sensor panel comprises windowed areas.

27. (New) The metal detector of claim 26 wherein each sensor panel comprises a weather-proof construction.

28. (New) The metal detector of claim 23 wherein the metal detector further comprises at least one base member coupled to the side walls.

29. (New) The metal detector of claim 28 wherein the metal detector comprises at least two base members, wherein a first base member is adjacent to the first side wall and a second base member is adjacent to the second side wall.

30. (New) The metal detector of claim 28 wherein the cross-member is a top cross-member that extends between the side walls.

31. (New) A modular walk-through metal detector comprising:

- a base comprising at least two base members;

- at least two separate and interchangeable transmitter sensor panels electrically coupled to each other and arranged one above the other to form a first side wall, a bottom transmitter sensor panel being adjacent a first base member;

- at least two separate and interchangeable receiver sensor panels electrically coupled to each other and arranged one above the other to form a second side wall opposite the first side wall, a bottom receiver sensor panel being adjacent a second base member;

- at least one top cross-member that engages each side wall; and

- a microcontroller operatively coupled to the transmitter and receiver sensor panels;

- wherein the microcontroller is configured to determine a position of each transmitter and receiver sensor panel.

32. (New) The metal detector of claim 30, wherein the sensor panels may be stored in the top cross member when the metal detector is disassembled.

33. (New) The metal detector of claim 30 wherein the metal detector comprises three transmitter sensor panels and three receiver sensor panels.

34. (New) The metal detector of claim 30 wherein each sensor panel comprises windowed areas.

35. (New) The metal detector of claim 33 wherein each sensor panel comprises a weather-proof construction.

36. (New) The metal detector of claim 34, wherein the sensor panels may be stored in the top cross member when the metal detector is disassembled.

37. (New) A method of detecting metal, the method comprising:

- providing a plurality of interchangeable transmitter sensor panels;
- providing a plurality of interchangeable receiver sensor panels;
- providing a base comprising at least one base member;
- providing a top cross member;
- assembling two side walls, a first side wall comprising at least two transmitter sensor panels such that the transmitter sensor panels are in electrical communication, and a second side wall comprising at least two receiver sensor panels such that the receiver sensor panels are in electrical communication;
- coupling the side walls to the base;
- coupling the side walls to the top cross member to provide an assembled modular metal detector;
- providing a microcontroller operatively coupled to the side walls;
- providing power to the metal detector;
- determining, by the microcontroller, a position of each transmitter and receiver sensor panel; and
- passing an object to be scanned through the metal detector.

38. (New) The method of claim 36 wherein the power is provided via at least one battery.

39. (New) The method of claim 36 wherein the sensor panels are provided stored in the top cross member.

40. (New) The method of claim 36 wherein the power is provided with a solar power system.

41. (New) A modular walk-through metal detector comprising:
a plurality of separate sensor panels electrically coupled to each other and arranged one above the other along two separate sides to form two side walls; and
at least one top cross-member that engages each side wall;
wherein the sensor panels may be stored in the top cross member when the metal detector is disassembled.

42. (New) A modular walk-through metal detector comprising:
a base comprising at least two base members;
at least four separate and interchangeable sensor panels electrically coupled to each other and arranged above the at least two base members to form two side walls, a bottom sensor panel of each side wall being adjacent a corresponding one of the at least two base members; and
a top cross-member that engages each side wall;
wherein the sensor panels may be stored in the top cross-member.

43. (New) A method of detecting metal, the method comprising:
providing a plurality of sensor panels;
providing a base comprising at least one base member;
providing a top cross member;

assembling two side walls each comprising at least two sensor panels such that the sensor panels are in electrical communication;
coupling the side walls to the base;
coupling the side walls to the top cross member to provide an assembled modular metal detector;
providing power to the metal detector; and
passing an object to be scanned through the metal detector;
wherein the sensor panels are provided stored in the top cross member.